



## ACE Research Vignette #52: Business growth and new initiatives in small and medium manufacturing enterprises from a design innovation program

This series of research vignettes is aimed at sharing current and interesting research findings from our team of international Entrepreneurship researchers. This vignette, written by Dr Judy Matthews examines the effects of firm engagement with design innovation programs on entrepreneurial activities of small and medium enterprises.

### *Background and research focus*

Increasing awareness of the benefits of stimulating entrepreneurial behaviour in small and medium enterprises has fostered strong interest in the funding of innovation programs. Governments in many western countries have invested in design innovation programs to stimulate better firm performance. The value design brings is a different way of thinking, of doing things, tackling problems and developing solutions. In practice design is key to greater productivity, whether by way of higher-value products and services, better processes, more effective marketing, simpler structures or better use of people's skills. Design is no longer a niche market luxury. It can be the most persuasive priority for solving problems, ensuring long term sustainability and gaining competitive advantages. The aim of this research was to examine outcomes from design innovation program initiatives established to improve entrepreneurship and innovation in small and medium enterprises, and to identify to what extent these programs lead to increased opportunity recognition, innovation activities and successful business performance.

The design innovation program being examined had been implemented for five years and deployed in more than 100 companies. The goal of this design innovation program was to "increase export earnings by assisting companies to grow in international markets, and to improve their financial performance by the strategic use of design". To achieve this goal, a range of services was offered to assist businesses to integrate design into all aspects of their operations and their strategy. An audit of the firms involved in this design innovation program conducted in 2008, found that the fifty highest performing companies were 3.5% ahead of reaching the targeted goal of an extra \$500m in export revenue in five years, and exports had grown at 4.5 times GDP.

There was now some good evidence across five years of the program, that the ambitious goals of improving export performance through design as a crucial value-add to manufacturing, tourism and other export-facing industries, had been achieved. While the economic benefits from the implementation of this program had been noted, insights into organisational changes that resulted from undertaking these programs were largely overlooked. Because of the relative newness of design innovation within the entrepreneurship literature, systematic, research-based knowledge about processes firms engaged used to engage with this approach is limited. A more detailed analysis of the firms' engagement with the design innovation program was undertaken to identify the strengths and weaknesses of the program and provide findings to inform decisions regarding future programs and ongoing government policy.

### *How we investigated this*

This study investigated the processes used in the design innovation program within a small number of firms using interviews and secondary data. An exploratory approach using semi-structured interviews was used to investigate two different cases of entrepreneurship and innovation. The cases were selected based on existing documentation of well-recognised innovations. Each case was documented via in-depth interviews with the research participants invited to participate in an interview and reflective process. Interviews were of 60 to 90 minutes duration and were recorded and transcribed for accuracy. Interview data were analysed using qualitative data techniques including pattern coding and

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data display to identify themes such as expectations, barriers, processes, and outcomes of entrepreneurship and innovation intervention program, with a particular focus on opportunity recognition.

Both companies had a successful 60 year history. One company developed transportation equipment focused on the commercial market, with 98% of products in international sales and a management buyout. The second company began as a family business technology solutions company with pride in technical excellence and functional capability that had moved to shareholder ownership. The latter's aspirational goals were to move from a product focused radio communications business to a more services and solutions focused communications business. Narratives of activities and changes in the company since completing the program around areas were developed for each company. The interviews explored the nature and extent of firms' engagement with the program; their business processes and outcomes; changes in business strategy; and the use of design as a strategy process.

## **Findings**

Both firms valued their involvement with the design innovation program and the opportunity to obtain assistance to refocus their firm's strategy and activities. Although the design innovation program was seen as just one of the suite of assistance programs offered by the government, both firms commented on the value of the design audit approach, that shifted their understanding of their business from a product centric to customer centric activity. Both firms commented that the holistic design approach helped to articulate and prioritise challenges and actions and the design team helped to facilitate a cultural shift to higher employee engagement by the organisation; growing market segments through customer engagement and better fit their strategy, and moving from a technical to a solution focus with a better understanding of customers. Both companies demonstrated economic growth from engagement with government programs commented that the relationship with design innovation program was more of a working partnership than a consultancy. The first firm substantially redefined its domain of geographic operation and a new business model, while the second firm described the processes of strategic renewal.

## **Conclusions and Implications**

This in-depth study of two small and medium enterprises who participated in a design innovation program demonstrated an entrepreneurial orientation in their engagement with government-subsidised programs, in terms of proactiveness, innovativeness and competitive aggressiveness. They also demonstrated openness to new ways of working and to developing new processes of strategic entrepreneurship and innovation in pursuit of competitive advantage, seeking new opportunities and ways to improve their competitive advantage, with outcomes of better business performance and better market positioning in global markets.

Findings from this small study support the patterns of corporate entrepreneurship already well articulated with larger firms. Small and medium enterprises are also open to opportunities, seek to recognise and respond to positive initiatives, create different pathways, and evaluate their success. These changes may be within an existing market or through the creation of potential new markets. Further studies of programs or initiatives that encourage entrepreneurship and opportunity recognition are anticipated.

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Matthews, Judy & Bucolo, Sam (2013) Improving opportunity recognition and business performance in small and medium manufacturing enterprises through design innovation programs. *Journal of Asia Entrepreneurship and Sustainability*, 9(1), pp. 116-135.